#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1x.28

# WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-026873 Address: 333 Burma Road **Date Inspected:** 14-Dec-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1630 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name:** Bernie Docena **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Bike Path - Skyway

## **Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived on the jobsite between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by American Bridge Fluor (ABF) personnel on the Skyway portion of the SFOBB. The following observations made were for extra work being performed to the following contract change orders:

CCO: 179 - Description: Item 2. On the South rail divider panels, install a pipe sleeve through the base plate and bikepath deck.

This QA Inspector randomly observed ABF welder Mr. Jason Collins (Welder ID 8128) performing the seal weld operation after the pipe sleeve is installed on the top and bottom plate of the bike path divider panels per the Flux Cored Arc Welding (FCAW) self shielding process in the (2F) horizontal position on the top plate and (4F) overhead position on the bottom plate. The seal weld operation was performed between Pier 10E to Pier 9E. This QA Inspector observed QC Inspector Mr. Bernie Docena verify prior to the start of the seal weld operation that the preheat temperature of 70 degrees F was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS D11-F2201 using the E71T11 electrode - (.030") diameter electrode.

After the seal weld operation was completed connecting the pipe sleeve to the top and bottom plates of the Bike path south side divider panels between Pier 10E and Pier 9E (7 locations - Pipe Sleeve #125 ~ #131), this QA Inspector observed QC Inspector Mr. Bernie Docena; perform a visual inspection of the seal weld to verify the weld quality. The seal weld quality visually appeared to be in general compliance with AWS D1.5-2002 Section 3. 6 and 6.26.

Afterwards, this QA Inspector also witnessed the brush application of inorganic zinc rich primer Interzinc 52 after

# WELDING INSPECTION REPORT

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the weld and surrounding base metal were cleaned in accordance with SSPC-SP3 Power Tool Cleaning.

CCO: 179 - Description: Item 2. On the South rail divider panels, install a pipe sleeve through the base plate and bikepath deck.

This QA Inspector observed ABF personnel drilling a 24 mm diameter hole through the 13 mm plate and 16 mm deck plate and centering the hole 19 +/- mm east of the centerline of the post base plate on the south rail dividers between Pier 10E and Pier 9E. This QA Inspector also observed the ABF personnel drilling a 27 mm diameter hole through the 8 mm bottom plate of the bike path panel for the installation of the pipe sleeve conduit pipe.

CCO: 193 - Description: Modify the existing bikepath panels at the expansion joints of the Skyway portion of the SFOBB East Span Seismic Safety Project.

This QA Inspector observed ABF personnel preparing to cut back the top and side skin plate and diaphragm plate using an oxyacetylene cutting torch on a track system of the bike path panel at Hinge "D" Expansion Joint. The cut back distance is 116 mm as per Contract plan sheet number 1164S7 and ABF Submittal number 2549R1. This QA Inspector observed that the work was in progress at the end of this QA Inspectors' shift.





### **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer